

Claims

1. A gripper comprising at least two fingers which are aligned substantially parallel to one another and are arranged at a distance from one another, said fingers being designed to partially support annular frames covered with a film in the region of frame and film, having finger tips which are flattened toward the front and vacuum lines on the gripper, which vacuum lines end at the upper surface of the gripper in the form of a number of vacuum openings with a raised outlet and are positioned to cooperate with the film.
- 5 2. The gripper as claimed in claim 1, in which the vacuum openings correspond to the outer region of the film.
- 10 3. The gripper as claimed in claim 1, in which adjustment pins are fitted on the gripper, which adjustment pins correspond to cutouts on the frame for the purpose of mutual alignment.
- 15 4. A method of operating a gripper comprising at least two fingers which are aligned substantially parallel to one another and are arranged at a distance from one another, said fingers being designed to partially support annular frames covered with a film in the region of frame and film, having finger tips which are flattened toward the front and vacuum lines on the gripper, which vacuum lines end at the upper surface of the gripper in the form of a number of vacuum openings with a raised outlet and are positioned to cooperate with the film, said method comprising the following steps :
 - traveling the gripper, in order to pick-up the frame which is horizontally stored and covered with the film, under said frame so that, in plan view, the fingers are partially covered both by the frame and by the film,
 - 25 - lifting the gripper until raised vacuum openings applied thereon and positioned below the film come into contact with the film and the frame rests on the gripper,
 - 30 - applying a vacuum at the vacuum openings as soon as the latter are in contact with the film or at the latest by the time the lifting operation is complete in order to fix the frame over the film.
- 35 5. The method as claimed in claim 4, in which the contact points of the vacuum openings are positioned in the outer region of the film.

6. The method as claimed in claim 4, in which external stops are used to align the frame relative to the gripper.
7. The method as claimed in claim 4, in which transport or storage cassettes are loaded or unloaded with frames.
- 5 8. The method as claimed in claim 7, in which the gripper, in order to load and unload cassettes, travels centrally between supports of slots formed in the cassette, wherein the regions of the frame overlap with the supports in plan view and the gripper overlaps in plan view with partial regions of the frame and with parts of the outer region of the film.